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Sloan 2001: A Virtual Odyssey

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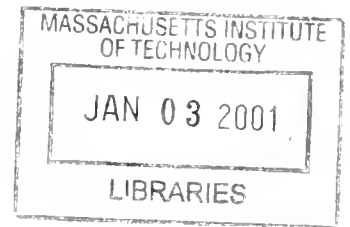
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## **Sloan 2001: A Virtual Odyssey**



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## **SLOAN 2001: A VIRTUAL ODYSSEY**

### **Introduction**

The “virtual phenomenon,” as it has been labeled is eliciting considerable interest these days. The literature on this topic is currently quite broad, representing a diversity of views and definitions, and differing by unit of analysis (individual, group, project, organization, network) as well as orientation of commentator (strategy, organization design, human resource, team development, technology management) (Boudreau et al., 1998; Castells, 1996; Davenport and Pearlson, 1998; Lipnack and Stamps, 1997; Mowshowitz, 1997; Nohria and Berkley, 1994; Townsend et al., 1998). While much speculation about the kinds of changes likely to be associated with shifts to virtual ways of working and organizing has been widespread, there is also a great shortage of empirical data about what changes are actually occurring, how, when, why, and with what consequences.

In this chapter, we provide an account of the emergence of a virtual community following a shift in institutional work practice from a traditional process to one that was primarily electronic. In the 1998/99 MBA Admissions season, the Sloan School of Management moved from a primarily paper-based application process to an entirely web-based application process. From the Admissions Office point of view, this shift to on-line admissions was intended to be a relatively contained and simple change in medium to reduce costs in one part of the process (in order to allow greater spending on another part) and to simplify work processes in the office, as well as to reinforce Sloan’s image of technological innovativeness. However, this shift was anything but contained, and we will describe how it set in motion a whole series of further changes, both in the work of the Admissions staff, and in the lives of the students applying to and



admitted by the school. In a matter of months, an extensive virtual community emerged, with many members of the newly admitted Class of 2001 creating and contributing to an on-line community which took on a life of its own. While many of these changes were interdependent, building on and influencing each other, most were also unplanned, emerging spontaneously from participants' action in the moment.

This emergent process of change has been identified in the literature as an alternative to the more dominant model that portrays change as planned, episodic, and discontinuous (Mintzberg, 1987; Weick and Quinn, 1999). It has also been used to characterize a series of ongoing and situated improvisations observed by Orlikowski (1996) in her study of organizational change enabled by the use of a groupware technology. We believe that the notions of emergence and situated improvisation can help us make sense not only of the changes we observed in the shift to an on-line application process but it can help us more generally make sense of the kinds of changes likely to be associated with shifts to virtual modes of organizing. Because the phenomenon of virtuality is so new and unprecedented, there is considerable ambiguity in what it means in practice to be working or operating virtually. Given this, we might expect organizations to experiment with and learn from a variety of virtual experiences. An analytic framework of emergence and improvisation would more easily account for such diversity and experimentation in practice than alternative models of change that rely more on assumptions of inertia, intentionality, and intervention (Weick and Quinn, 1999).

Our account of the changes associated with the shift in medium by the Sloan School's Admissions Office is drawn from multiple sources: open-ended interviews, texts (paper and electronic), and a survey. We interviewed the five key members of the Sloan School's Admissions Office, working at various levels and with various functional responsibilities. In



addition, we interviewed ten members of the Sloan Class of 2001, some during on-campus orientation and before the start of the academic year (August 1999), some during the first semester (September – October 1999), and some (including two interviewed earlier) at the beginning of the second semester (February 2000). These interviews were examined for key activities, events, and outcomes. We examined two primary types of textual data: the process documentation of the Sloan School's Admissions Office (both paper-based and electronic), and the electronic archive of the Sloan Class of 2001 Yahoo! Club and newsletter, representing the asynchronous electronic communication of the Sloan Class of 2001 virtual community from March 31, 1999 to November 30, 1999. Texts of the electronic media were content-analyzed to identify patterns of usage and common categories of interest. Finally, we administered a brief web-based survey in February 2000 to the entire 305-member Sloan Class of 2001 (response rate of 31 percent or 94 responses). This survey data gave us descriptive statistics and allowed us to take into account the experiences and outcomes of a broader set of the Class of 2001.

In the following, we provide a chronological account of the changes initiated by the institutional decision to implement an on-line application process for admission to the Sloan School—following these to the emergence of the virtual community of the Class of 2001. We offer some glimpses into the actual world of the virtual community, discussing the kinds of activities and conversations engaged in by the participants, as well as the implications of these changes for both the staff in the Admissions Office and the students who interacted with this process. We then interpret these changes in terms of an improvisational model of change, showing how a series of planned, emergent, and opportunistic changes wove together as the Admissions staff and the students responded to, modified, and improvised around the situated changes they were collectively enacting over time. We conclude by suggesting some



implications of virtual organizing for changes in process and community, and suggest some unintended consequences of such changes.

### **History of the Emergence of the Class of 2001 Virtual Community**

The story began with a decision late in 1997 by the Sloan School's Admissions Office to move to an entirely on-line admissions process for the MBA class of 2001 (the members of which would be admitted during the spring of 1999). Several factors encouraged this decision, including factors related to cost and to simplified work processes. The primary driver for this shift was the high cost of the current, paper-based process. The school annually mailed out application brochures to tens of thousands of inquirers, only around 10 percent of whom actually applied to the school. Because these brochures included time-sensitive application information, they had to be redesigned and reprinted each year, a process seen as a waste of resources, but, until this time, necessary. Moreover, Alex, at that time in charge of the department which included the Admissions Office, saw an opportunity to use the savings generated by going online and create—within the existing budget—an additional Sloan brochure highlighting the school's graduates. This decision would allow the Admissions Office to print larger numbers of two very high quality paper brochures with less time-critical information and a two-year shelf life, all for the same price as printing a single new, one-year brochure two years in a row. Such an approach was possible because the web-based version of the application brochure, with frequently updated information including critical time lines, became the official source of information for all applicants to consult when completing their web-based applications. A secondary driver was the anticipated simplification of some work processes. In particular, the Admissions Office would





receive data such as e-mail addresses and test scores already in electronic and manipulable form, rather than having to enter this information for each applicant as each paper form was received.

In addition to these drivers, issues around image and readiness encouraged the shift. As part of MIT and in its own right, Sloan embraced and cultivated a high-tech, innovation-oriented image that would only be enhanced by such a move, especially if it were the first of the MBA programs to do so. Moreover, the time seemed right for this move. Sloan's administration already knew from previous years' admissions that all applicants had e-mail addresses and were computer savvy, and many of them were using an off-the-shelf application package for generating applications to major business schools, including Sloan. Some students were also already applying via an optional on-line system, which had allowed Mark and Michael, the key players in managing the admissions process, to become comfortable with it. Thus the Admissions Office felt that they were ready for such a shift.

Given the cost and process incentives, along with the image and timing factors, the Sloan Admissions Office decided to move the 1999 MBA application process entirely to the web. The move was accomplished in partnership with a firm, GradAdvantage, with which the Sloan Admissions Office had already collaborated experimentally. This firm ran the web site for the application process itself. As applications were completed, they were downloaded in batches to the computer in the Sloan Admissions Office for processing. Thus no one at Sloan had to enter all the data into a database—it was in electronic form from the beginning, and was transformed from GradAdvantage's format to Sloan's format as soon as it was downloaded. This transformation initially encountered some formatting glitches, but they were quickly solved and did not affect the availability of the data. From the start, then, the Sloan Admissions staff had the advantage of having e-mail addresses, test scores, and other kinds of manipulable data. This on-



line process also enabled the staff to communicate with the applicants quickly and easily via e-mail, for example, to acknowledge the arrival of an application, to request missing items such as transcripts and recommendations, and to acknowledge completion of the application. Finally, it allowed the Admissions staff to send out information to all applicants on what they should expect next, thereby reducing applicant anxieties and anticipating common questions that would normally have been handled by telephone for many individual applicants. For the Admissions Office, this change in process had many benefits, both expected (more brochures for a lower cost, access to data without data entry, reinforcement of desired image) and unexpected (ability to manage applicant questions promptly and in many cases proactively).

To complement this new web-based application process and the e-mail communication it facilitated, the Admissions Office decided to set up a website that would serve as a source of information for students once they were admitted. The decision to set up this website for admitted students was made well after the original decision to use the GradAdvantage site for on-line applications, but before the admissions process really got underway. The decision to create this complementary website—which came to be known as the AddMIT Sloan site—was taken largely to be consistent with the earlier part of the admissions process. The Admissions Office staff felt that as the application process had been handled electronically up to that point, admitted students would expect this electronic means of communication to continue.

According to Alex, the AddMIT Sloan site was designed to achieve three general goals: to market Sloan to the admitted students and encourage them to accept their offers of admission, to manage the matriculation process by facilitating the processing of required forms quickly and accurately, and to connect admitted students with one another. The web site was designed around the first two goals, with the idea that the Admissions staff would add information and features



related to the third goal (connecting admitted students) in the summer before students arrived on campus.

The Admissions staff believed that the site was reasonably successful in achieving their first two goals. As soon as students were offered admission (which occurred in two waves to match the School's two application deadlines), they were sent (via e-mail) the URL of the AddMIT Sloan site and told that they should use this website as their primary source of information about the next stages in the process. This website replaced what had previously been several mailings to admitted applicants which included forms to be sent to various offices and information on a range of issues related to attending Sloan. The website also provided time lines and extensive information aimed at persuading potential students to accept the School's offer, including news stories aimed particularly at this audience, electronic chat sessions with faculty and staff, and access to alumni/ae mentors. In addition, this website was the only place where applicants could accept their offers of admission to the school. So, this website served as a central hub for all admitted students.

The last goal for the AddMIT Sloan site—to connect students—was rendered moot by the emergence of the student-driven virtual community of the class of 2001, which facilitated student connections more rapidly, more effectively, and in a different form than had been expected by the Admissions staff. This virtual community also indirectly advanced the first goal, as we will see in what follows. To achieve the goal of connecting students, members of the Admissions Office had intended to add information and features to the AddMIT Sloan site during the pre-matriculation period, posting e-mail addresses and facilitating communication of admitted students before they entered. Well before they took this step, however, students had initiated the virtual community, with the AddMIT Sloan website as a critical but unplanned



element in the initiation. One of the features of the AddMIT Sloan site was a “chat room,” set up to host virtual discussions between admitted applicants and specific faculty and staff members. It was the site of a key interaction that initiated a powerful snowballing effect. The first scheduled virtual chat with a faculty member was held on March 31, 1999. After it ended, and the professor and the Admissions staff had signed off from the chat room, several admitted applicants stayed on and continued to chat among themselves. Out of this interaction came the idea of establishing an electronic message board and chat website for students admitted to the Sloan Class of 2001.

Before getting to the outcome of that meeting, however, we must understand how the pre-dispositions of these admitted students to communicate electronically had already contributed to what occurred at that chat session. Prior to the faculty chat session, one of the attendees, Megan, had already electronically met two of the other attendees, Karina and Luis. Karina and Megan had met through the MIT Sloan club hosted on the Yahoo! website (in Yahoo!’s MBA-Central area). Most members of that club were Sloan graduates, with only a few current students participating. Karina had discovered this site while surfing the web, shortly after being admitted to Sloan. Excited about her new affiliation, she posted a message saying that she had been accepted at Sloan. Megan, who also happened to browse this website, saw Karina’s message and contacted her via e-mail. Thus began an on-going e-mail interaction. Megan had also (electronically) met a third attendee at the faculty chat session, Luis, this time through the community web site, PlanetAll. In her PlanetAll profile, Megan had indicated her status as an admitted Sloan student. Luis noticed this and contacted her directly via e-mail to report his similar status. Thus at least three of the newly admitted Class of 2001 members participating in





the first faculty chat session had already had electronic contact with one or more of their future classmates also attending the chat.

Excited about attending Sloan, the eight or ten students who stayed on after the March 31 faculty chat session exchanged e-mail addresses and continued "talking." During this conversation, they came up with the idea of starting an electronic message board and chat room for admitted Sloan applicants. They considered both Yahoo! and PlanetAll as possible hosting websites, and ultimately decided to try both and "let the market decide." By later that evening, the Yahoo! club had been established and the opening message announced: "Welcome, This is the Yahoo! Message Board for MIT Sloan class of 2001 community." This Yahoo! site quickly won out over the PlanetAll alternative, also established immediately, primarily because it was more familiar to the early members of the community. One early member noted that "The most ingenious idea [of the founders] was to leverage what already existed"—the ubiquitousness of the Yahoo! platform. In commenting on the adoption of the Yahoo! site, he noted that while other websites might have had more features or been better in various ways, the simplest solution to their goal of communicating with each other was the one that won out.

At the start, only a handful of admitted students participated in the Yahoo! club. These included the group of students at the original faculty chat session, as well as a few other admitted Class of 2001 students known to the founding members. The second posting to the message board, however, reflected the founders' interest in using this electronic medium to establish connections among themselves:

Let's make this work... it's up to us. When could we chat? Let's invite more people to join that we know got accepted!!!

As indicated in this message, the website had both a chat room for synchronous, transitory communication and a message board for asynchronous posting and archiving of messages. The



first chat session on the Yahoo! club was scheduled for the next Monday night. Because these chat sessions were transitory, we have no direct access to their content. However, our interviews with participants as well as our reading of the comments posted to the message board right after the sessions suggest both their freewheeling character and their popularity among a small core membership in the club (including the initial members). Indeed, one participant noted that they were “addictive,” while another commented:

It was much more fun to be in the same “room.” These chats were ephemeral and so we were more free and open as a result. The sessions were scheduled for Mondays from 9pm to 11pm but they would go on till at least 1am or 1:30am.

The initial Yahoo! Club members appear to have been highly committed, but in the first few weeks of April, membership in the club grew slowly, and participation on the message board not at all. A couple of members attended various local Sloan events for admitted students and announced the existence of the club, gaining a few more members. One of the founders, Karina, engaged in what she called “guerilla marketing,” that is, marketing the club directly to others. Karina was living in California at the time, and she asked the Admissions Office for the e-mail addresses of other admitted students living on the West Coast. She then e-mailed each of them an invitation to join the club, in particular telling them about an upcoming Monday chat session they could join. The founding members estimate that this direct marketing effort brought in some 60 to 90 new members, some of whom undoubtedly participated in the chat, but postings to the message board were still few and primarily by the same small set of individuals.

The largest impact on both club membership and use of the message board came when the AddMIT Sloan site added a link to the Yahoo! club. As early as a week after the club was started, the idea of the link had been proposed to the Sloan Admissions Office and reported on the message board: “We may be getting linked to the MIT Sloan official site. Keep checking....” Behind the scenes, Michael (a member of the Admissions staff) passed the request for a link to



the Sloan 2001 Yahoo! club up to Alex (his boss). When Alex accessed the Yahoo! club's message board to see what was going on there, he was impressed to see the energy and variety of the people posting to it. He saw that this club was indirectly contributing to one of the major goals of his marketing efforts in general: to highlight the diversity and well-roundedness of Sloan students. While Sloan already had an image of technological innovation which the move to electronic admissions enhanced, Alex felt that Sloan did not have the image of student well-roundedness that he felt it deserved to have. This club demonstrated that well-roundedness in a direct and compelling way. As one participant noted in a comment posted to the message board during this early period:

One thing that amazed me is how many different professions were represented at yesterday's chat. The stereotype about Sloan being dominated by engineers just doesn't seem valid. There was a international trade consultant (Karina), a venture capitalist (John), an I-Banker (Jason), a student of Public Policy (Ricardo) - the list goes on.

Given the positive image projected by the Yahoo! club, the Admissions Office readily agreed to include a link to it on the AddMIT Sloan site. The link was actually launched with significant fanfare in an item in the "New and Noteworthy" section of the site on April 28, 1999. The item was titled "Meet and Greet Your New Classmates on the Internet," and included a general invitation to join the Club, the link to the club, a brief history of the founding of the club recounted by Karina, a brief article by Megan entitled "Random Thoughts in Cyberspace," and a final section on FAQs (Frequently Asked Questions) labeled "How to Use the Club: Questions and Answers." The AddMIT Sloan site thus provided not only a link to the club, but details on its content, context, history, and usage norms. In addition, and perhaps more importantly, the inclusion of club information on the official Sloan website gave the club immediate legitimacy. As one founding member put it, the AddMIT Sloan site "got it [the club] branded, and gave it credibility."



This Sloan link was the beginning of a new phase in the club's life. It was key to making the club known and accessible to far more than the initial small group, or even that group plus those reached by the guerilla marketing. From this time on, the asynchronous message board became increasingly used by admitted students as a vehicle for sharing information helpful in preparing for life at Sloan, as well as for getting to know each other (described in more detail in the next section). An additional and interesting use of the message board was the posting of photographs taken at face-to-face functions so that others could vicariously share in the local events.<sup>1</sup> The growth in club membership was also manifested in the expansion of the synchronous chat sessions. These had been originally scheduled for once a week on Monday evenings (Eastern time), but as membership grew these were quickly expanded to three times a week at various times to accommodate participants living on the West Coast and in other parts of the world. After the club took off, its activities thus represented both increased participation and increased diversity of participation by the students in their efforts to connect with each other.

The Class of 2001 virtual community involved more than expanded membership and participation in the Yahoo! club itself. The next development was the creation of an electronic newsletter. Again, a serendipitous interaction played a key role. At a Boston "C-function" (this term—referring to a "Consumption Function"—is used in the broader Sloan community to designate social events involving the consumption of food and drink), the idea to hatch such a newsletter emerged from a conversation between a few attending admitted students and Mark, a member of the Admissions Office. All of the participants in this discussion agreed that this was a good idea. From the students' point of view, it would provide another outlet for creative energy

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<sup>1</sup> Another use of photographs was initiated by two of the club members during pre-term classes in August; these members developed a "picture book," essentially a database of photographs and profiles of the incoming class, by taking digital pictures at pre-term courses and posting them with bio descriptions to a database accessible through the web.





and visibility within the new Class of 2001 community. From the Admissions Office point of view, it would provide another means of disseminating useful information and offering a student-generated picture of the diversity and well-roundedness of the incoming class. Within a week, the first issue of the electronic newsletter was made available on a student-maintained website and a link to it was soon set up on the AddMIT Sloan page to allow for easy access<sup>2</sup>. The newsletter was labeled “2001: A Sloan Odyssey,” and the homepage for the newsletter described it as created

By, of, and for the Sloanies of '01, their SOs, families and other hangers-on, during our collective transition between "Life As We Knew It" and "Life At Sloan"!

Notification of the newsletter and its website was made via a broadcast e-mail message sent by the Admissions staff to all admitted students. The newsletter also included a brief description of the Yahoo! club and a link to the club website. This brought in a number of new participants into the club, particularly international students.

The foreword to the first newsletter reflects the growing enthusiasm of club members for their virtual community:

Sloan 2001 is the first class to apply online. It was only appropriate that we would meet each other electronically first.

There was a perceived need for a newsletter to go along with the regional C-functions and Yahoo! club activity. So some energetic admits decided to get cracking.

This and following newsletters will serve as a countdown to our final convergence to Boston in August.

Sloan 2001 is on a voyage of discovery together. Now that Julie, Pat, Joyce, Anita, Edgar, Frank, Millie, and Megan have gotten the ball rolling, we want your help to keep it going. Submit articles, ideas, calendar events and anything else which you would like to share.

After providing e-mail addresses to use in submitting items, the description ended, “Let the journey begin ...”

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<sup>2</sup> Eventually, the newsletter—which would run to seven issues between May and August—was moved to the MIT Sloan website.



While membership numbers weren't logged over time, the club eventually reached a size of over 300 (including a few members of the Class of 2000 and staff in the Admissions Office) during the summer before the students started pre-term activities in mid-August.

### **Enacting the Virtual Community**

As we saw above, admitted students had a variety of electronic means to connect with their classmates: the message board, their regularly scheduled chat sessions, and the newsletter. In addition to these interactions, some admitted students met face to face in a variety of events organized by themselves or Sloan, some had personal telephone conversations, and some exchanged person-to-person e-mail. Thus, interactions were diverse: one-to one, one-to-many, and many-to-many, and these interactions used both synchronous and asynchronous media.

Our primary sources of data on students' interactions are the archived messages posted on the Yahoo! Club and the electronic newsletters. In this section, we will focus on these two sources, and especially on the interactions on the message board. While the postings to the message board do not completely capture all the interactions of the Class of 2001, they do reflect the general rhythm and timing of concerns and interests that were occupying the minds of the incoming class as they prepared to become full-time students. We first examine the general pattern of postings throughout the life of the message board, and then consider the general content of messages posted. In the following section, we will complement this discussion with interview data from participants and admissions staff.

During the period between March 31 and November 30, 1148 messages were posted to the message board. As illustrated in Figure 1, the majority of these messages (1068, or 93 percent of the messages) were posted during the four months between April 28 and August 31.



April 28 is when the Admissions staff added a link from the AddMIT Sloan site to the Yahoo! club, and announced that link in their “What’s New” section. As a result of the sudden increased visibility of the club and its message board, the number of postings surged from an average of one a day to ten a day. After August 31, with Orientation Week underway, the number of messages dropped significantly (almost down to zero). By this time, members of the Class of 2001 had all moved to the Boston area, and had completed most of their preparations for school. More importantly, they were meeting and developing connections face to face. The message board, as a common place where admitted students still dispersed all over the world could interact, was no longer necessary.

The postings to the message board also had a general weekly pattern: few messages were posted on weekends (7 and 9 percent of total messages were posted on a Saturday or Sunday, respectively), while the majority of the messages were posted between Monday and Thursday (about 72 percent). Wednesday was the most popular day for posting (22 percent of the messages). This pattern suggests that most members of the Class of 2001 were participating during regular work hours.

Our analysis of the content of the messages posted on the message board indicates that the participants engaged a wide range of subjects. Initially, we categorized these messages into 20 broad subject categories (see Table 1). Subsequently, we grouped these 20 categories into two general clusters: messages which include participants’ activities and efforts to connect with and learn about their peers (“Getting to Know Each Other”); and messages which describe participants’ activities and concerns in preparing to become students at Sloan and residents of the greater Boston area (“Getting Ready For Sloan”).



The subjects within the cluster “Getting to Know Each Other” represent a variety of ways through which participants became familiar with their future colleagues, including self introductions, coordinating and reporting on real-time interactions (both in electronic “chats” and face to face functions), commenting on the community or peers met during the real-time interactions, discussing common personal interests, and sharing photos of each other on the web. Messages typically included multiple subjects. For example, one participant posted the following message on June 6 with the subject line “San Francisco Mates.” In it she briefly introduced herself, described a personal interest (water-rafting), and offered to coordinate a group water-rafting trip:

Hi to anyone joining the class of 2001 who lives in the San Francisco Bay Area!

I've only just joined the "club" (sounds so elite!) and missed a number of functions y'all put together.

I'd love to know who you are and if anything else is upcoming. I'd also love to organize something myself if there's interest! I'm a rafting guide and would love to do a river trip for us on the American River if there's interest..... any takers? Willing to trust me to get you down the river?! (not to worry - it's how I financed my undergraduate education!). It would need to be before August I most likely, and if midweek works for anyone, it's the most enjoyable (but not a prerequisite).

Anyways, if someone has a list of addresses and wouldn't mind sending me an email offline so I can get in touch, I'd really appreciate it!

Harriet

harriet@web.com

As this message illustrates, the message board became a medium used by participants to get to know each other, electronically and face-to-face.

The second general cluster of subjects on the message board concerned “Getting Ready For Sloan,” and these dealt with the practical issues associated with preparing for attending Sloan and living in Boston. For example, on June 10, one participant posted a message soliciting advice and sharing information regarding the MIT on-campus housing lottery:

[Subject line:] Lottery is In : Seeking Housing Advice !





Hi there,

My number has come and I have been offered Tang Hall. Does anyone know the pros and cons regarding Tang vs. Edgerton?

For all those in a state of housing anxiety, I heard yesterday (June 9) via email and my number was 253.

Thanks,  
Sam

Postings in these “Getting Ready For Sloan” categories included discussing housing options, finding roommates, comparing types of laptops, reporting good deals on books, and seeking advice on financial issues such as insurance and financial aid. As suggested in the example above, and discussed in the following section, the exchange of information was both practical and anxiety-reducing.

Of the 1148 messages that were posted on the message board, about 72 percent (842 messages) dealt with subjects in the “Getting to Know Each Other” cluster, while about 40 percent (442 messages) focused on subjects related to “Getting Ready For Sloan.” Only a few messages—about 10 percent (118 messages)—had content in both clusters of subjects.

Similarly, the largest percentage of articles posted in the newsletter dealt with subjects regarding “Getting to Know Each Other.” The newsletter published a total of 77 articles in 7 issues between May 25 and September 8. Of these, 68 percent (52 articles) contributed to “Getting to Know Each Other,” including items on personal interests (e.g., in one issue there was a series of articles dedicated to the musical interests of class members), an author's travel experiences, a calendar of events listing get-togethers, and an “Announcements” section describing personal accomplishments of participating class members. Articles covering issues related to “Getting Ready For Sloan” (either by themselves or in addition to subjects classified as “Getting to Know Each Other”) made up about 52 percent (40 articles) of those posted. These articles included interviews with faculty members describing various academic tracks at Sloan, personal experiences with the



area housing market, and an international participant's observations of cultural particularities of the United States. Table 2 compares the percentage of items posted in both the message board and newsletter that covered issues in either or both of the "Getting Ready For Sloan" and "Getting to Know Each Other" subject clusters.

Table 3 summarizes the eight most popular subjects covered in the message board and the newsletter. Examining specific subjects within the "Getting Ready for Sloan" cluster, we see that the message board dealt more with obtaining a house or apartment ("housing") and choosing computer equipment ("hardware") while the newsletter addressed such matters as immunization shots and loans ("life at Sloan") and academic life at Sloan ("academics at Sloan").

Finally, while we do not have direct access to the interactions students engaged in during the weekly chat sessions, it is reasonable to assume that a range of subjects similar to that represented in the message board and newsletter was covered in these informal synchronous conversations. Indeed, one message posted on the message board and referring to recent experience in a chat sessions, suggests this as well:

What an invigorating chat! I spent something like four hours chatting with various people as they wandered into the chat room from ... San Francisco, Tijuana, Bogota, New York, Oslo, the Basque region of Spain ... forgive me if I've forgotten anyone who was there!

We talked about so many interesting subjects: - Housing (of course!) - Roommates - Religion - Music - Travelling - The logistics involved in moving to Cambridge - Work/Quitting Work/Getting Ready to Quit Work - Motivation (or the lack thereof) at Work - Back injuries and surgery - C-functions - Playing around with the "Emotions" function! - Sloan and HBS - Rankings - Financial Aid and Scholarships - Camaraderie and Teamwork at Sloan Hmmm....maybe I should have written this right after the chat. Or taken notes. My head is swimming...

Julie -- I kept wondering if you were going to be there, you party girl, you!

Well, have a great week, everyone! Feel free to join in on any of the scheduled chats, or get together with others and schedule your own!

Enjoy life! Millie

The virtual community clearly had plenty to discuss in all its media.



## **Making Sense of the Virtual Community**

One important way to understand the emergence of this virtual community is to understand how the participants made sense of it and what value they obtained from it. Our survey and interview data suggest that the students experienced a number of outcomes through their participation in the virtual community, most—but not all—of which were positive.

During the period between their admission to Sloan and their arrival in Boston, students indicated that their participation in the virtual community had made them less anxious about their capabilities and preparedness for Sloan and helped them with the practical details of preparing to attend Sloan:

It was exciting to get a sense of who my classmates were – their concerns, opinions, etc.

I started feeling a part of the school before I got here.

I got a sense of community, a better feel for my classmates, a better understanding of the Sloan experience and forthcoming opportunities.

It was social interaction, and it was a lot of comfort that you know, ... probably most of the people that come into such a, you know, demanding program, are really worried, "am I good enough?" ... So, it was a lot of comfort because you could see other people had the same worry. ... It was such a relaxed environment, and everybody was so open that really, you know, it was very comfortable to bring up any issues we had.

A great chance to "meet" people before coming to Sloan. Found out about people's work experiences, interests, cultures. It was also a good resource for finding answers to the many questions we all had during our transition (moving, housing, cars, etc.)

The club was fantastic. It eliminated a lot of concerns I had about things like housing, laptops, bags, ... Being in [a foreign country], I had no idea what I was getting into in Boston and Sloan. And I got a lot of good information from the club.

[I] learned about housing opportunities. Arranged temporary housing with people I "met" in the club.

Information about computers, what were the good choices others were buying, prices they were paying, etc.

Useful information on a number of very relevant topics, such as housing, books, classes, matriculation process (e.g., health examination) plus the social aspect of getting to know future classmates.



In the interviews, the founders of the club and a small group of other admitted applicants have suggested that the weekly chat sessions were the most “fun” part of the club, but the chats were only a small part of the whole community. Attendance at these chats only ranged from 10 to 30 individuals, according to estimates from a few of the participants. For those active in them, the chats enabled them to get to know others on a more personal basis. For example, one student noted:

On the chat, it was, you know, it was fun, and I actually had a couple very good electronic friends that we kind of made, made chats a routine. And we said we'd chat every Monday, and Wednesday. We knew that 9:00 in the evening we had, you know, a couple of hours, so we had, like the regulars of the chat, and then people would come in and join in the discussion.

Still, the survey (which is likely to overstate, rather than understate, actual participation in all aspects of the club) indicated that only 44 out of 94 respondents read and/or contributed to the chat sessions, while 81 of the 94 read and/or contributed to the message board and 62 read and/or contributed to the newsletter. One survey respondent noted that the chats were: “fun at first, but became tiresome because the same 5 or 6 people dominated the room.” Participation in the chat sessions was more difficult for international students who could only join the chats for short periods of time or not at all to avoid tying up telephone lines and running up phone bills.

Students' experiences in the virtual community particularly affected their experience in orientation activities—the face-to-face events organized by the Sloan School right before the term starts to welcome the new students and have them form their teams. Indeed, the virtual community seems to have played an important and positive role in paving the way for face-to-face interaction. One student who had deferred admission from the previous year, and who had participated in the previous year's orientation, was able to directly compare the different orientation experiences in the two years:

I mean, the first day it was like very different. When I got here to orientation last year, I almost didn't know anybody. Although I've been to those two C-functions, the luncheons, but those are so





formal and so you don't get to say more than Hi, what's your background?" So at the orientation last year, it was more like, you know, checking out the atmosphere and standing back and looking around to see what other people are doing. If someone made eye contact with you, you kind of tried to say hi. But this time, the first day of orientation there was so many hugs and yells, and laughter, and people that finally got to see you face-to-face after all those months. You know, there were people I wasn't very close to, people who only posted a couple of messages, but I got some really very big hugs from some of them.

Other students similarly noted that the virtual community had made the initial face-to-face meetings at Sloan much more enjoyable:

Orientation was not as intimidating because we had gotten to know each other on the Yahoo! Club.

First off, you could built on sort of what you had talked about earlier [on the message board]. "So, Joyce, how is this thing?? You know. Meeting people in person was easier because you already had a building block, a frame of reference for them. You already had a connection. Then you go into other things, you know. So you sort of felt that since you already talked about certain things before, you could sort of use that as a frame of reference, sort of as a building block, for other things too.

One of the most exciting parts of the beginning of orientation was discovering who each of the Yahoo personalities were in person. People would say to me, "Oh, you're floscampi!" [shouldn't we change this?] and I would respond, "you're the one from Israel (or Canterbury, or Hong Kong, or Spain) I chatted with!" It was a marvelous journey of discovery.

My personal feeling is that it had a tremendous influence. I was not walking into a room with a bunch of strangers who were all competing with me. These were friends that I'd gotten to know over three months, and shared the things I loved with them. So, the rules were very clear – we were friends, here to have fun.

The survey responses and interviews both suggest that the influence of the virtual community waned once the term began. When asked about the influence of the Yahoo! Club on life at Sloan during the term, the majority of survey respondents responded "none," roughly a quarter reported a residual positive influence, and no one reported negative effects. The interviews and informal contacts with students suggested a minor negative influence, though most of it at an earlier point in time. For example, a few students who joined the club some time after it had started indicated that they were a little overwhelmed and "intimidated" to find hundreds of postings already. One student noted his anxiety at the time about being "behind" even before the term began. One participant observed in an interview that:



Perhaps the club created a bit of a hierarchy – the more you were heard the more people knew you. It seems almost inevitable that it created something of a class structure. ... I saw some resentment towards the people who were on the club. Some people who came late to the club felt there was some exclusivity in the club, that it was a “clan,” that they were left out of. Some people told me that they did not feel welcome.

These more negative understandings of the club also occasionally emerged after the term began when some students who had not been involved in the virtual community asserted themselves in the face-to-face community. In one participant’s view, this process occasionally downplayed the importance and value of the virtual community, and created a bit of a “backlash” against its founders.

However, both interviews and survey responses reveal an ongoing positive influence on friendships and community. A number of the students we interviewed noted that they had met and formed good friendships through the virtual community, friendships that have been sustained through the transition to face-to-face interaction:

The friendships you make during preterm, are, you know, really strong, and they kind of carry on.

Actually most of the people that I'm most close to are people that I had some kind of contact with over the summer. ... most of them, kind of sorted them out, themselves out over the summer. Because you had a lot of time to kind of figure out who was who from their postings on the message board and from their contributions in the chat rooms.

There is still a sense of community today. I know a lot more people than I would have if I had not participated in the club. The community was very important during the transition to Sloan.

One student elaborated on the value of the network she had formed before the term began, on her experience of and performance in the first term at Sloan. When she encountered academic or interpersonal challenges which she could not address within the boundaries of her assigned team, she was able to draw on the broader network she had formed earlier:

So, the fact that I knew people, and I was close enough to them to afford to make a phone call in the evening when I had a problem [I] couldn't solve, and [...] it was helpful to know who came from finance when I had a problem with finance.... [I]t's not only that I met people over the summer, but also knowing how the system works, and knowing how you can reach out, like having more knowledge before starting school, I think it helps. Because, that gave me confidence to reach out to people, second year [students], even if I didn't know them.



### **The Sloan Odyssey as Improvisation**

As is evident from our description of the Sloan school's shift to an entirely web-based application process, many of the changes and consequences associated with that shift were both unintended and unplanned by the Admissions staff as well as by the admitted students. This process of change resembles that referred to by a number of commentators as *emergent* change (Mintzberg 1987; Mintzberg and Waters, 1985), *continuous* change (Weick and Quinn, 1999), or *improvisational* change (Barrett, 1998; Orlikowski, 1996; Orlikowski and Hofman, 1997). Mintzberg and Waters (1985) suggest that because emergent changes are realized solely in action, they can be differentiated from deliberate changes which are planned ahead of time. Weick and Quinn (1999, p.375) note that continuous changes are "ongoing, evolving, and cumulative" and that they are "situated and grounded in continuing updates of work processes and social practices."

In the context of new technology, Orlikowski and Hofman (1997) suggest that improvisational change is the iterative series of often-unpredictable changes that evolve out of the situated experiences, evolving capabilities, emerging practices, and unplanned outcomes typically accompanying the ongoing use of new technologies. Because the shift to on-line admissions and the emergent virtual community both depended substantially on the use of new technology, we have adopted the analytic framework of improvisational change here

Building on Mintzberg's (1987) distinction between deliberate and emergent strategies, Orlikowski and Hofman (1997) distinguish between three kinds of interdependent and situated changes that weave together over time: anticipated (or planned) changes, emergent changes, and opportunistic changes. *Planned* changes are designed ahead of time and occur as intended.



*Emergent* changes develop spontaneously out of local innovations and are not originally anticipated, designed, or intended. *Opportunistic* changes are not planned or designed substantially ahead of time but are introduced purposefully and intentionally in response to an unexpected opportunity, event, or breakdown. Where both planned and opportunistic changes involve deliberate action, emergent changes arise tacitly out of people's situated practices. Where both emergent and opportunistic changes are situated, developing from particular action, planned changes are planned ahead of time and then implemented subsequently. The order in which these types of changes occurs is not predetermined.

In contrast to the deliberate or episodic models of change, an improvisational model recognizes that change is an ongoing process made up of opportunities and challenges which are not necessarily predictable at the start. As Weick and Quinn (1999, p. 381) evocatively put it: "change never starts because it never stops." Improvisational change recognizes that in attempting to make sense of and respond to new situations, technologies, and events, people engage in a series of interdependent and ongoing adaptations -- planned, emergent and opportunistic -- which result in a series of organizational adaptations, experiments, and outcomes, some intended and some unintended, some positive and some negative. In the process of change associated with the Sloan School's move to on-line applications, we see instances of all three types of change: planned, opportunistic, and emergent. We will consider these changes from the perspectives of the two different key groups involved in the changes -- Admissions staff and admitted students.

### **Admissions Staff**

The Admissions staff had intended and planned for the shift to a web-based application process, and they expected this change to make better use of the budget for printing brochures,





simplify the work process, and increase the visibility of the school. In addition to, and complementing this shift in the medium of applications, the Admissions staff saw an opportunity to implement a new web site, the AddMIT Sloan web site, which they then planned to use to market the school to admitted students, to manage the matriculation process, and to connect the students. The first of these was greatly and unexpectedly enhanced by the emergence of the virtual community, while the last of these was essentially supplanted by the virtual community.

While moving to an on-line application process and implementing the AddMIT Sloan site were both deliberate changes made by the Admissions staff, though with differing amounts of advanced planning and opportunism, they had not expected or planned for the extent of student interest in connecting electronically prior to arriving at the school. The Admissions staff became aware of this interest as they witnessed students' spontaneous interactions following the faculty chat sessions on the AddMIT Sloan site, and the students' subsequent creation and expansion of the Yahoo! Class of 2001 club. Having observed this student interest in and enthusiasm for connecting electronically, the Admissions staff recognized its potential value to the school, and consequently initiated a number of opportunistic changes to reinforce and legitimate the students' efforts. In particular, they advertised the Yahoo! club in their various face-to-face and telephone contacts with admitted students, they established a link to the club from their official AddMIT Sloan site, they encouraged the idea of the newsletter and then disseminated information about it to the whole class once the first issue had been completed, and they occasionally provided informational support to the club by participating directly on the Yahoo! message board.

The Admissions staff involvement in these subsequent unplanned changes initiated by the students' activities resulted in a number of unintended consequences. The Yahoo! club gave the



Admissions staff an additional forum in which information about the school was disseminated and which provided answers and guidance to students deciding among schools or preparing to enroll at Sloan. In addition, the Admissions staff believed that the nature of discussion in the Yahoo! club reflected well on the school, providing an unintended but very welcome and particularly effective additional source of information about the school. As Alex, a senior staff member noted:

The club helped to show the multi-faceted nature of the school in a way that we could not have done.

This is an interesting instance of the kind of “distributed construction” that Boczkowski (2000) identifies as increasing user participation in the creation of content on news web sites. He suggests that the increased role of users in content creation leads to a blurring of the previously tightly-controlled and tightly-defined boundaries of information production and consumption. In the case of the Sloan Class of 2001 virtual community, we can see how the students, by engaging over time in open and detailed conversations about their backgrounds, interests, experiences, and concerns, produced a rich portrayal of themselves (and hence of the school to which they had all been admitted). From the Admissions Office point of view, then, the virtual community was an instance of distributed construction of content for the new class.

### **Admitted Students**

From the perspective of the admitted students, the changes they participated in were neither planned in advance nor intended. Rather, they engaged in both emergent and opportunistic changes. The process started with the eight to ten admitted students who staying logged on after the first scheduled faculty chat session organized on the AddMIT Sloan site. The idea of staying in touch electronically emerged from this spontaneous chat session. Following up



on this emergent idea, a few of the students created a couple of Sloan Class of 2001 web clubs on the web sites of Yahoo! and Planet-All. Within a number of hours, the Yahoo! club emerged as the favorite web site, due largely to its “simplicity and ubiquity,” as one founding member told us. Use of the Yahoo! club emerged initially in two forms: synchronous chat sessions scheduled for once a week on Mondays (and later expanded to three times a week to accommodate different purposes and international participation), and asynchronous postings to the message board at any time.

Whenever and wherever possible, members of the club spread word of its existence via announcements at face-to-face events and through broadcasting e-mail messages to admitted students in particular regions such as the West Coast and New York. The impact of such opportunistic diffusion of information about the club was significantly amplified when a few of the students asked the Sloan Admissions staff to include an announcement of and link to the club on the official AddMIT Sloan web site, and when the Admissions staff, recognizing the inadvertent contribution of this site to their marketing efforts, did so. The result of this move was dramatic. Membership in the club increased as did the active involvement of students in both synchronous and asynchronous interaction.

A further student-driven opportunistic change occurred a few weeks after the emergence of the increased participation. A few students and a member of the Admissions staff chatting at a Boston-area consumption function generated the idea of producing an electronic newsletter for the incoming Class of 2001. In this move, they were helped and encouraged by the Sloan Admissions staff, who saw this as a further marketing opportunity, notified all the students in an e-mail message about the completed first issue of the newsletter, and eventually put a link to the newsletter on the official AddMIT Sloan web site. In the first issue of the electronic newsletter,



the students include a prominent mention of the Yahoo! club and its activities. This produced a second marked and emergent increase in participation, particularly among international students, in club membership and participation on the message board. Finally, the drop-off of message board participation and of all activity in the Yahoo! club after the class assembled at MIT for Orientation and thus met each other face to face was unanticipated by the student participants and emergent in nature.

### **Improvisational Change**

Table 4 presents the various changes experienced by both groups of players. In examining this sequence of changes over time for both groups, we can see how an initial intended and planned change implemented by one group created the conditions for a series of emergent and opportunistic changes in another group, which in turn led to additional opportunistic changes by the first group, and so on. We can see how an initial planned and relatively contained shift in work process set in motion a whole series of unfolding, interdependent, and not-at-all contained changes in both the work of the Admissions staff, and the lives of the students applying to and admitted by the school.

Recognizing these different types of changes associated with the shift to virtual admissions and the subsequent spawning of the virtual community allows us to represent this shift to virtuality as an ongoing series of planned, opportunistic, and emergent changes rather than a predefined program of change charted by either the Sloan admissions group or the admitted students. This model recognizes that changes – particularly those involving unprecedented phenomena such as virtual organizing and interacting – are unlikely to be fully planned and planned ahead of time. Rather, changes will emerge and evolve over time out of the





practical experience of virtuality and the responses of various participants to the unplanned opportunities and unintended consequences afforded by a new way of organizing and interacting.

### **Conclusions**

In retrospect, the virtual community described in this chapter was by most accounts a success. We have seen that the virtual community emerged around a few specific events (the conception and creation of the Yahoo! club; the linking of the club to the AddMIT Sloan site), grew to become a major communication vehicle during the few months before students arrived at Sloan, and died down once they arrived in Boston in August. Explanations—both of the community's usefulness during the months before arrival and its loss of usefulness once students arrived—focus on its role in fulfilling important social and practical purposes of the participants. Participating students appear to have found the club the most accessible and convenient forum in which to exchange information useful to their pending relocation to the Boston area (for most admitted students) and entry into the Sloan School. They also felt that the virtual community provided an opportunity to establish a network of acquaintances, even friends, before meeting them face to face. Once the participants arrived at Sloan and met each other face to face, they no longer had a compelling purpose for engaging with the virtual community. Their face-to-face community had developed and supplanted the virtual one.

Based on this case, we can draw some tentative lessons for nurturing virtual communities such as this one. The life and death of this community point to the importance of a compelling purpose to the vitality of a virtual group. Communities without a compelling purpose may never become established, while communities whose compelling purpose disappears are likely to die out. Another key element in the emergence of this virtual community was the use of a



technology that was accessible and usable to the potential community. In an interview, one student noted how interesting it was that the Yahoo! message board and chat room technology, which he viewed as fairly basic, won out as the hosting site for the community. A common-denominator system, even at the cost of functionality, seems to be valuable in allowing the broadest participation in a widely-dispersed virtual community. Finally, the credibility of the virtual community with its target population was important—in this case, the fact that it was created and run by admitted students and not hosted by Sloan itself (though the Admissions office certainly facilitated it unobtrusively in many ways) made it particularly credible to many of the students.

The lessons for the change process around the establishment of a virtual community center on the importance of emergent and opportunistic changes. Planned change in this, and undoubtedly in many other cases of community emergence, accounts for only a limited part of the total change. As communities evolve, unanticipated emergent change is inevitable and potentially positive. Moreover, and perhaps more importantly for those attempting to support such communities, opportunistic change plays a critical role. In this case, the Admissions Office observed and reinforced desirable developments without trying to drive the change process. This approach was quite successful, and suggests a model for organizations attempting to encourage the development of a virtual community. By anticipating that there will be surprises, and watching for them, organizations can encourage small emergent changes, nurturing them into larger ones beneficial to the life of the virtual community. In addition, they can attempt to discourage negative changes, though this endeavor is more delicate and risks stifling the emergent changes so critical to the on-going life of a community [see, for example, Wenger 1998 on various ways of nurturing communities of practice]. Thus we see that unanticipated changes,



while inevitable, may support the emergence of a positive virtual community, especially when reinforced by strategic opportunistic changes.



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**Table 1: Subject Categories of Messages Posted on Yahoo! Class 2001 Message Board**

*Getting to Know Each Other*  
**chat**

refers to the Yahoo chat sessions (scheduled for three times a week on the club web site)

**f2f meeting**

refers to events when members met each other face to face or visited Sloan

**group**

refers to the group participating on-line, such as commenting on the diversity of participants

**index**

refers to an index that was created of messages posted to the board

**medium**

refers to the web medium for the Yahoo club discussions and chats, e.g., the Yahoo site, Yahoo versus Planet-All, archiving messages, accessing the site

**newsletter**

refers to newsletters that were put together by participants for the Class of 2001

**peers**

refers to characteristics of the Class of 2001, fellow Sloan MBAs, how others perceive Sloan MBAs, and need to enrol more women into Sloan

**personal interest**

refers to members' interests along professional (e.g., VCs, business), and leisure lines (e.g., dancing, traveling, movies, etc.)

**photos**

refers to any photos of the members posted on the web

**pybk**

refers to the "pre-yearbook" picture book and on-line database (both of the incoming Class of 2001) developed by some of the members

**self**

refers to personal characteristics, e.g., nationality, ethnicity, educational qualifications

*Getting Ready For Sloan*  
**academics at Sloan**

refers to course or track options in the curriculum, e.g., ITBT Track

**accepting offer**

refers to the decision to accept the Sloan offer

**auto**

refers to owning an automobile in Boston, whether or not to have one, and where to get insurance

**books**

refers to course books, e.g., what books to get and where to purchase them (on- and off-line)

**hardware**

refers to discussions about the kind of computer to buy (including computer bags, cell phones, financial calculators, palm pilots)

**housing**

refers to various housing options, e.g., apartment hunting, off- versus on-campus housing, lottery, temporary housing, selling furniture, insurance

**life at Sloan**

refers to aspects of life as a Sloan student, e.g., logistics, rankings, GMS dues, financial aid

**life in Boston**

refers to general life issues, e.g., what bank to join, local travel option



**Table 2: Percentage of Postings in Message Board and Newsletter**

	<b>Message Board (percentage)*</b>	<b>Newsletter (percentage)*</b>
<i>Getting Ready For Sloan</i>	38.50	51.95
<i>Getting to Know Each Other</i>	71.78	67.53
<i>Getting Ready For Sloan and Getting to Know Each Other</i>	10.28	15.58

\* Please note: Because several postings covered two or more subjects, the total adds up to over 100 percent.

**Table 3: Most Popular Subjects Covered in the Message Board and Newsletter**

<b>Message Board subject (percentage)*</b>	<b>Newsletter subject (percentage)*</b>
chat (7.14)	f2f meeting (9.09)
life at Sloan (8.01)	academics at Sloan (10.39)
hardware (9.76)	group (12.99)
self (14.72)	life in Boston (18.18)
housing (15.42)	self (20.78)
group (15.59)	peers (20.78)
personal interest (19.34)	personal interest (23.38)
f2f meeting (19.60)	life at Sloan (29.87)

\* Please note: Because several postings covered two or more subjects, the total adds up to over 100 percent.



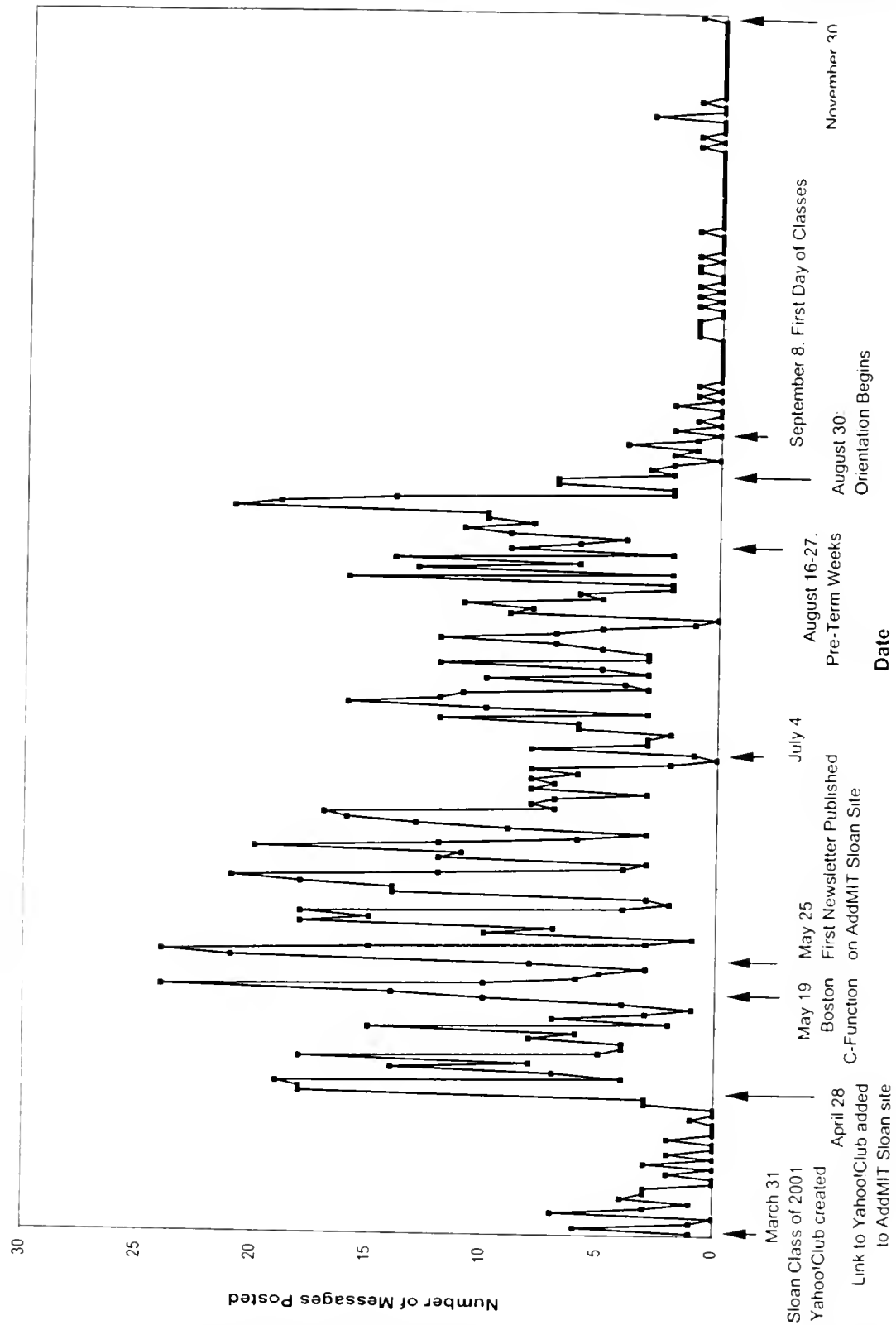
**Table 4: Types of Change Associated with Shift to On-line Application and Emergence of Virtual Community**

Key Players	Nature of Change	Type of Change
Admissions Staff	<ul style="list-style-type: none"> <li>• shift to a web-based, on-line applications process (working with third party: GradAdvantage)</li> </ul>	Planned
Admissions Staff	<ul style="list-style-type: none"> <li>• establish a web site for admitted students (AddMIT Sloan) which facilitates information distribution and hosting of faculty chats; subsequently edit web site to accommodate student-led initiatives</li> </ul>	Planned and Opportunistic
Admitted Students	<ul style="list-style-type: none"> <li>• explore the idea of starting own web site for electronic connection before arriving at Sloan, and generate the Sloan Class of 2001 Club on the Yahoo! web site</li> </ul>	Emergent
Admitted Students	<ul style="list-style-type: none"> <li>• discuss how to increase participation in Yahoo! club in the chat sessions and on the message board</li> </ul>	Emergent
Admitted Students	<ul style="list-style-type: none"> <li>• inform fellow students of Yahoo! club at face-to-face events and via regional broadcast e-mail messages</li> </ul>	Opportunistic
Admissions Staff	<ul style="list-style-type: none"> <li>• include a description of and link to the Yahoo! club on the AddMIT Sloan web site</li> </ul>	Opportunistic
Admitted Students	<ul style="list-style-type: none"> <li>• increase participation in the Yahoo! club chats and message board</li> </ul>	Emergent
Admitted Students and Admissions Staff	<ul style="list-style-type: none"> <li>• generate the idea of and create an electronic newsletter which includes link to Yahoo! club</li> </ul>	Opportunistic
Admissions Staff	<ul style="list-style-type: none"> <li>• inform students of the newsletter and its location by sending broadcast e-mail message to the whole class</li> </ul>	Opportunistic
Admitted Students	<ul style="list-style-type: none"> <li>• increase the participation of international students in the Yahoo! club chats and Message Board</li> </ul>	Emergent





Figure 1: Number of Messages Posted to Yahoo! Class 2001 Message Board per Day







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